

1. BLECHMAN, I. I., eng.

2. USSR (600)

4. Rivets and riveting

7. Electric riveter I-120. Mekh. stroi. 9, No. 10, 1952

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

SLESAREV, YU.M.; SEDEL'NIKOV, A.N.

The SL-60 electric riveter [Invented by IU.M. Slesarev, A.N. Sedel'-nikov]. Rats. i izobr. predl. v stroi. no.147:13-15 '56.

(MLRA 10:3)

(Electric welding--Equipment and supplies)

AUTHOR: Slesarev, Yu.M., Engineer

98-58-4-4/18

TITLE: Experimental Research on Flexible Vibrating Conduits  
(Eksperimental'nyye Issledovaniya Vibrokhobotov)

PERIODICAL: Gidrotekhnicheskoye Stroitel'stvo, 1958 Nr 4, pp 16-20 (USSR)

ABSTRACT: The cost of concrete work amounts to about 50% of the total cost of hydrotechnical constructions, depending largely upon the means and method of transportation of the mixture to the construction site. There are two ways of passing the concrete down from the platform to the foundation: by cranes or by so-called flexible-vibrating conduits. These were employed for the first time on the construction of the Tsimlyansk Hydroelectric Power Plant and became standard equipment on the construction of the Kakhovka, Kuybyshev and Stalin-grad Hydroelectric Power Plants. The great advantage of these conduits lies in their low operating cost: vibrating conduit with 6-7 vibrators having a capacity of 2.6 kw is capable of doing the same job as a 10 ton gantry boom crane. Another advantage is continuity of discharge. The vibrating conduit consists of a flexible pipe with a funnel at the intake end and a shut-off valve at the discharge end. Its diameter varies

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Experimental Research on Flexible Vibrating Conduits

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between 250-300 mm operating from a height of 40 m. The design of these conduits has been subject to a number of improvements pertaining to the shut-off valve and the flow-speed reducers which were necessary to check the flow of concrete. Of several speed reducers tested in Kuybyshev, the best one proved to be the flow dividing type (a special section of the pipe with a wedge in its center, which divides the flow of the concrete acting at the same as speed governor) Such a reducer can be built-in every 10 m with the result that the flow of concrete at the discharge does not exceed 3-4 m/sec. Investigations and tests were carried out on the Stalingrad site. Vibrating conduits with built-in magneto-inductional transducers, which revealed the speed at which the concrete flowed before and after passing a reducer, were used. It was found that in a vibrating conduit descending 25 m with a deflection of 7 m from the vertical line, the flow speed of the concrete attained 15 m/sec before reaching the reducer and 3-5 m/sec after passing the reducer, the flow thus having been slowed down 3 times. These investigations led to the modernization of the design and resulted in the T-165 vibrating conduit which is equipped with reducers.

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Another improvement consists in the cable suspension of the different sections which renders the conduit more manuevrable. A great handicap in the operation of the conduit is imposed by frost which causes the concrete to freeze. The new model is therefore equipped with a heating device. In September 1957, tests with vibrating conduits were discontinued to determine the effect this method of pouring concrete would have on the quality of the product. The indicators of the concrete poured with vibrating conduits proved better (90-92%) than with buckets (79.5-81%). There are 2 figures, 2 tables, and 3 Soviet references.

AVAILABLE: Library of Congress

Card 3/3

1. Hydraulic conduits-Applications
2. Hydraulic conduits-Design
3. Concrete-Preparation
4. Construction-USSR

SLESAREV, Yu.M., inzh.

Vibrating feeders for concrete mixes. Mekh. stroi. 15 no. 4:9-12

(MIRA 11:5)

Ap '58.

(Vibrators) (Concrete construction)

SLESAREV, Yuriy Mikhaylovich; VAYNSHTEYN, G.M., inzh., red.; BASHILOV,  
V.I., red.; LEBEDEVA, L.V., tekhn.red.

[Using vibrating concrete feeders in constructing hydroelectric  
power stations] Primenenie vibrokhobotov dlia podachi betonnoi  
smesi pri sooruzhenii gidrouzlov. Moskva, Orgenergostroi, 1959.  
37 p. (MIRA 14:1)  
(Hydroelectric power stations) (Vibrators)

SLESAREV, Yu.M.

More about trucks for transporting concrete. Prom.stroi. 37  
no.12:52 D '59. (MIRA 13:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy insitut Stroydormash.  
(Concrete--Transportation) (Motortrucks)



KOROLEV, K.M., kand. tekhn. nauk; SLESAREV, Yu.M., inzh.

New method of heating concrete and mortar aggregates. Mekh.  
stroi. 18 no.12:14-16 D '61. (MIRA 16:7)

(Building machinery)  
(Aggregates(Building materials))

SLESAREV, Yu. M., inzh.

Electric stud welding under flux with mobile electrodes.  
Svar. proizv. no.10:20-21 0 '62. (MIRA 15:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut stroitel'nogo  
i dorozhnogo mashinostroyeniya.

(Electric welding)

VOL'BERG, A.A. (Moskva); ADLER, Yu.P. (Moskva); BELYAYEV, A.I. (Moskva);  
Prinimali uchastiye: IVANOV, M.A.; SLESAREV, Yu.S., tekhnolog.

Electroconductivity of an electrolyte in respect to its composition  
and method of feeding with alumina in industrial aluminum bath. Izv.  
AN SSSR. Met. no.3:26-33 My-Je '65. (MIRA 18:7)

1. Nachal'nik vtorogo uchastka elektroliznogo tsekha Ural'skogo  
aluminiyevogo zavoda (for Ivanov).

SEESAREVA, A. I.

Gynecology

Means of lowering the incidence of gynecological diseases and of curbing temporary disability caused by them. Akush. i gin. No. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, October 1952 ~~1953~~, Uncl.

L 63585-65 -- EWT(m)/EWG(m) -- RM/RWH/GS

ACCESSION NR: AT5013639

UR/0000/65/000/000/0080/0085  
66.074.8; 546.791.6

14  
B+

AUTHOR: Laskorin, B. N.; Slesareva, D. D.; Semenikhina, L. A.

TITLE: Ion-exchange behavior of uranyl in hydrochloric acid media. Separation of uranium, sulfate, and phosphate in the process of desorption

SOURCE: AN SSSR. Otdeleniye obshchey i tekhnicheskoy khimii. Radiokhimicheskiye metody opredeleniya mikroelementov (Radiochemical methods for determining trace elements); sbornik statey. Moscow, Izd-vo Nauka, 1965, 80-85

TOPIC TAGS: column chromatography, uranium separation, anion exchange resin, uranyl ion, uranium desorption

ABSTRACT: A study was made of the influence of HCl concentration on the process of sorption of hexavalent uranium by anion exchangers of different basicities containing amino and pyridinium groups, under static conditions. The results obtained were used in the separation of uranium, phosphate, and sulfate ions in the process of desorption. As the HCl concentration increases (up to 6-8 M), the capacity to adsorb uranium increases, the adsorption of strongly basic exchangers being more effective than that of weakly or moderately basic ones. The sorption

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ACCESSION NR: AT5013639

of uranium is explained by the formation, in concentrated HCl media, of anionic chloride complexes which have a great affinity for the anion exchangers. For this reason, treatment with concentrated HCl of an anion exchanger saturated with uranium from sulfate solutions converts the sorbed sulfate complex to a chloride complex, this conversion being gradual. Subsequent desorption of uranium with water or a weak HCl solution (1-2%) makes it possible to achieve a 90-95% separation of uranium from sulfate and phosphate ions. The incomplete separation of uranium from ferric ions is explained by the sorption of anionic chloride complexes of iron, which are stable in concentrated HCl media. Orig. art. has: 4 figures and 3 tables.

ASSOCIATION: None

SUBMITTED: 17Jan63

NO REF SOV: 003

ENCL: 00

SUB CODE: IC, Ge

OTHER: 002

Card <sup>K</sup> 2/2

KOZLOV, P.V.; FROLOVA, A.A.; SLESAREVA, L.F.

Influence of mechanical action on the acceleration of structural transformations in crystallizing polymers. Dokl.AN SSSR 145  
no.1:125-128 J1 '62. (MIRA 15:7)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.  
Predstavleno akademikom V.A.Karginym.  
(Polymers) (Crystallization)

POTEKHIN, V.V.; SLESAREVA, L.V.

Diagnostic errors in lung cancer. Zdrav. Turk. 8 no. 1:11-14  
Ja '64. (MIRA 17:5)

1. Iz kafedry rentgenologii i meditsinskoy radiologii (zaveduyushchiy  
V.V. Slesarev) i fakul'tetskoy terapii (zaveduyushchiy - dotsent  
Ye.A. Pletnev) Turkmenskogo gosudarstvennogo meditsinskogo instituta  
i Turkmenskoy respublikanskoy klinicheskoy bol'nitsy im. N.I.  
Pirogova (glavnyy vrach M.B. Shapiro)



FLINT, K.V.; SLESAREVA, N.V.; KLIYA, M.O., land. geol.-miner.  
nauk, otv. red.

[Synthesis and physical properties of diamond; bibliographical index, 1934-1961] Sintez i fizicheskie svoistva  
almaz; bibliograficheskii ukazatel' 1934-1961. Moskva,  
izd-vo "Nauka," 1965. 119 p. (MIRA 18:3)

1. Akademiya nauk SSSR. Sektor seti spetsial'nykh bibliotek.

METIUSHEV, B.D.; Primala uchastiye SIESAREVA, O.I.

Concentration of higher alcohols during the rectification  
of ethyl alcohol. Trudy KTIPP no.27:75-86 '63.

KOVAL', V.G.; SKIRSTYMONSHIT, A.I.; BORISOVA, B.I.; RUBCHENKO, I.F.;  
LITVAK, I.M.; GRIVTSEVA, E.A.; SLESAREVA, S.I.

Changes in the composition of nitrogen substances in molasses  
dependent on the duration of sugar manufacture. Report No. 1.  
Trudy UkrNIISP no.9:14-20 '64.

(MIRA 17:10)

1. Ukrainskiy nauchn -issledovatel'skiy institut spirtovoy i  
likero-vodochnoy promyshlennosti (for Koval', Skirstymonskiy,  
Borisova, Rubchenko). 2. Kiyevskiy tekhnologicheskiy institut  
pishchevoy promyshlennosti im. Mikoyana (for Litvak, Grivtseva,  
Slesareva).

SLESAREVA, R.I.

Explosion of the anesthesia apparatus during endotracheal  
oxygen-ether anesthesia. Khirurgia 35 no.6:127-129 Je '59.  
(MIRA 12:8)

1. Iz laboratorii anesteziologii (zav. - doktor med.nauk Ye.Ye.  
Gigovskiy) Gosudarstvennogo onkologicheskogo instituta im.P.A.  
Gertsena (dir. - prof.A.N.Novikov).

(ANESTHESIA, ENDOTRACHEAL, compl.

explosion of appar. during oxygen-ether  
anesth. (Rus))

(EXPLOSIONS

of anesth. appar. during encotracheal oxygen-  
ether anesth. (Rus))

SLESAREVA, R.I.

Intravenous fractional potentiated thiopental sodium anesthesia  
in radical maxillofacial oncological surgery. Khirurgiia 37  
no.4:99-102 '61. (MIRA 14:4)

1. Iz Onkologicheskogo instituta imeni P.A. Gertsena (dir. -  
prof. A.N. Novikov, nauchnyy rukovoditel' - zasluzhemyy  
deyatel' nauki deystvitel'nyy chlen AMN SSSR prof. A.I.  
Savitskiy).

(THIOPENTAL)

(FACE—SURGERY)

SLESAREVA, R.I. (Moskva, A-8, 1-y Dmitrovskiy proyezd, d.4, kv.48)

Changes in external respiration and basal metabolism during  
potentiated ether intubation anesthesia. Vest. khir. 89 no.10:  
87-92 0 '62. (MIRA 17:10)

1. Iz operatsionno-anesteziologicheskogo otdeleniya (zav. - kand.  
med. nauk P.D. Belyakov) Gosudarstvennogo onkologicheskogo insti-  
tuta imeni P.A. Gertsena (nauchnyy rukovoditel' - prof. A.I. Sa-  
vitskiy), Moskva.

NECHAYEV, Yu.B., kand. med. nauk; SLESAREVA, R.I.

Case of sudden cardiac arrest during endotracheal oxygen-ether  
anesthesia. Khirurgiia 40 no.7:132-133 J1 '64.

(MIRA 18:2)

1. Iz Gosudarstvennogo onkologicheskogo instituta imeni Gerstena  
(dir. - prof. A.M. Novikov).

LIPCHENKO, V.D.; SLESAREVA, T.A.; SHURSHIKOVA, P.A.; SHUL'MAN, D.I.;  
SMIRNOV, Ye.V.; KONOVALOVA, N.A.; PEN'KOV, Ye., red.; LEBEDEV,  
A., tekhn.red.

[Collection of exercises in calculating industrial production  
costs] Sbornik uprazhnenii po kal'kulirovaniu sebestoimosti  
promyshlennoi produktsii. Moskva, Gosfinizdat, 1959. 207 p.  
(MIRA 12:11)

(Costs, Industrial)



BORIN, A. V., SLESAREVA, V. I.

Investigating the factors affecting the coloration of the photographic film base by optical sensitizers. Tekh.kino i telev. 4  
(MIRA 13:8)  
no.5:73-74 My '60.

1. Kazanskiy filial Nauchno-issledovatel'skogo kinofotoisnituta.  
(Motion-picture photography—Films)

S/058/63/000/003/042/104  
A062/A101

AUTHORS: Akhmedzyanov, M. A., ~~Slesareva, V. I.~~, Khaykin, M. S., Kukhtin, V. A., Borin, A. V.

TITLE: About the influence of some antioxidants on the photographic properties and conservation of emulsion layers

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1963, 84, abstract 3D575  
("Tr. Vses. n.-i. kinofotoin-ta", 1962, no. 46, 31 - 35)

TEXT: A study was made on the influence of some derivatives of polyphenols and hydrazine on the photographic properties and conservation of sensitized emulsion layers. It was found that phenylhydrazone of glucose and phenylglucosazone contribute to improve the conservability of sensitized light-sensitive layers. There are 12 references.

[Abstracter's note: Complete translation]

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AKHMEDZYANOV, M.A.; SLESAREVA, V.I.; KHAYKIN, M.S.; KUKHTIN, V.A.; BORIN, A.V.

Effect of some antioxidants on the photographic properties and  
keeping quality of emulsion layers. Trudy NIKFI no.46:31-35 '62.  
(MIRA 18:8)

BORIN, A.B.; SLESAREVA, V.I.

Fading of cyanine dyes in darkness. Trudy NIKFI no. 46:49-64<sup>1962</sup>.  
(MIRA. 10:8)

USSR/Farm Animals. Rabbits.

Q-3

Abs Jour: Ref Zhur - Biol., No. 22, 1958, 101219

Author : Slesareva, Ye. N.

Inst : Timiryazev Agricultural Academy

Title : Activity Changes of Alkaline Phosphatase of  
the Bones Under the Influence of Various Factors

Orig Pub: Izv. Timiryazevsk. s.-kh. akad., 1957, vyp. 1,  
145-150

Abstract: It was established that alkaline phosphatase  
activity of arterial blood and bone tissue  
changes with the animals' age. Mn and Co  
salts which are absorbed by the organism with  
food, change the activity of alkaline bone  
phosphatase. It is assumed that Co, Mn, and  
possibly K activate phosphatase, while Ca, Sr,  
Ba, and Zn inhibit it.

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SLESAREVA, Ye.N., kand.sel'skokhozyaystvennykh nauk

Craniological collection of the E.F. Liskun Museum of Animal  
Husbandry and its theoretical and practical significance. Izv.  
TSKHA no.6:143-157 '60. (MIRA 13:12)  
(Skull) (Cattle--Anatomy)

S/680/61/000/020/006/013  
D258/D302

AUTHOR: Slesaryeva, Ye. N.

TITLE: The oxidation of titanium (a review)

SOURCE: Moscow. Gosudarstvennyy nauchno-issledovatel'skiy i pro-  
yektnyy institut obrabotki tsvetnykh metallov. Sbornik  
nauchnykh trudov. no. 20, 1961. Metallovedeniye i obra-  
botka tsvetnykh metallov i splavov, 65-80

TEXT: A review based essentially on Western work, covering the  
field up to 1959. The subject is conventionally divided into high-  
temperature and low-temperature oxidation. The contributions of  
Soviet-bloc scientists are mentioned as follows: The rapid increase  
of oxidation rate in oxygen at  $T > 800^{\circ}\text{C}$  is explained by A. V. Rev-  
yakin (Ref. 11: Dissertation. Institut metallurgii im. A. A. Bay-  
kova, AN SSSR, 1956) as occurring after the splitting-off of scale,  
as a result of pressure, and also by the formation of  $\text{TiO}$ . V. A.  
Konstantinov (Ref. 17: Titan i yego splavy. Sb. Statey (Titanium  
and its Alloys. Collection of Papers) VIAM, 1954) assumes that this /

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The oxidation of titanium ...

S/680/61/000/020/006/013  
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duce a solid solution of H in Ti. The oxidation in water vapor is more intensive only at 800 - 900°C. Arkharov shows the differences between oxidation in air, oxygen and nitrogen respectively: Oxygen oxidizes more intensively than air, up to 1100°C and beyond that limit the order is reversed. The reversal is attributed to the effect of nitrogen which interacts with Ti at higher temperatures. The scale at 1100°C and higher, consists of  $TiO_2$ ,  $Ti_2O_3$  and  $TiO$  (Arkharov). I. I. Kornilov (Ref. 28: Khimicheskaya nauka i promyshlennost', v. 3, no. 6, 1958) showed that an addition of 3 - 4% Al enhances oxidation at 700°C, while alloys, more rich in Al, react more slowly. The oxidation is also slowed down by Be, while the addition of Si is thought to increase the rate of reaction. There are 2 tables and 39 references: 9 Soviet-bloc and 30 non-Soviet-bloc.

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S/126/61/012/003/010/021  
E193/E135

AUTHORS: Layner, D.I., and Slesareva, Ye.N.

TITLE: The effect of tin on oxydation of titanium

PERIODICAL: Fizika metallov i metallovedeniye, vol.12, no.3, 1961,  
395-402

TEXT: Although tin is added to titanium-base alloys to stabilise the  $\alpha$ -phase, to ensure good weldability, and to improve the workability of titanium-base alloys with a high aluminium content, little is known about the effect of this element on oxydation of titanium. A.E. Jenkins (Ref.1: J. Inst. Metals, 1955, Vol.84, No.1, 1) who had studied the 11.4% Sn-Ti alloy, found that in the presence of Sn the rate of oxydation of titanium at high temperatures (starting from 850 °C) rapidly increased. He postulated that the ability of oxygen to diffuse through the scale and through the metal under the scale is the governing factor in the process studied. On the other hand, the results obtained by some Soviet workers indicated that diffusion of titanium plays a predominant part in the formation of titanium scale. The object of the present investigation was to check the  
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results obtained by Jenkins. The experimental work was carried out on binary alloys containing 0.02, 1.65 or 9.0 wt.% Sn, melted in a vacuum-arc furnace, forged, rolled, and annealed in air. The oxydation tests were conducted on polished specimens 10 x 10 x 15 mm, the increase in weight being used as the measure of the degree of oxydation. The results are reproduced in Fig.1, where the increase in weight (mg/cm<sup>2</sup>) is plotted against time ( $\tau$ , hours) at temperatures indicated by each curve. The experimental points denoted by circles, dots, crosses and triangles relate, respectively, to pure titanium and to titanium alloys containing 0.02, 1.65 and 9.0% Sn. It will be seen that the rate of oxydation of titanium, practically unaffected by 0.02 and 1.65% Sn additions, increased more than fivefold (at 1000 °C) in the presence of 9% Sn. This difference was also reflected in the results of X-ray diffraction analysis of the scale. Scale formed on the former two alloys consisted almost exclusively of TiO<sub>2</sub>, whereas that formed at 1000 °C on the 9% Sn alloy consisted of the following four layers: textured TiO<sub>2</sub>; TiO<sub>2</sub> with no texture; TiO; Sn at the TiO/alloy interface. Another effect of the

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The effect of tin on oxydation of.. S/126/61/012/003/010/021  
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presence of a large proportion of tin in the alloy was revealed by microhardness measurements. It was found that microhardness of the alloy layer saturated with oxygen (that is the layer adjacent to the scale) varied depending on the Sn content, being 945, 675, and 300 kg/mm<sup>2</sup> in the 0.02, 1.65 and 9% Sn-Ti alloys, respectively. The conclusions reached by the present authors can be summarised as follows. In the presence of small quantities of tin the mechanism of oxydation of the Ti-Sn alloys is the same as that for pure titanium: when the tin content is high the process of oxydation also begins by the formation of TiO<sub>2</sub>, but at the same time tin which is surface-active in respect to titanium diffuses towards the surface metal layers. As a result, the concentration of Sn in the surface layer may increase to such an extent that localised melting of the alloy takes place. Since diffusion through a liquid face proceeds at a rate considerably faster than through the solid metal, this effect would explain the rapid increase of the oxydation rate in the Sn-rich titanium alloys. It is also possible that the outward diffusion of titanium causes the formation of vacancies in the interior of the specimen, whereby

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diffusion of titanium is facilitated. This, combined with the increase in the rate of diffusion due to the presence of a liquid phase, leads to the formation of an internal TiO layer at the Sn/TiO<sub>2</sub> interface, which means that, contrary to the conclusions of Jenkins, counter-current diffusion is taking place. This is indicated not only by the presence of an Sn layer at the metal/scale interface, but also by the absence of oxygen-saturated metal layer under the scale, formed on the Sn-rich alloys. The latter effect indicates that, in the presence of a liquid, Sn-rich phase, diffusion of titanium increases to such an extent that practically all oxygen diffusing through the scale is taken up by titanium diffusing outward from the alloy. Thus, the catastrophic rate of oxydation of the 9% Sn-Ti alloy at high (> 700 °C) temperatures must be attributed to the outward diffusion of titanium which can take place owing to the formation of a layer of a liquid, Sn-rich phase. There are 4 figures, 2 tables and 7 references: 3 Soviet-bloc and 4 non-Soviet-bloc. The English language references read:

Ref.1: as quoted in the text above.

Ref.6: M. Hansen. Constitution of Binary Alloys. 1958, p. 1212.

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The effect of tin on oxydation of ... S/126/61/012/003/010/021  
E193/E135

ASSOCIATION: Giprotsvetmetobrabotka pri VSNKh  
(Giprotsvetmetobrabotka at VSNKh)

SUBMITTED: January 27, 1961

Card 5/6-

LAYNER, D.I.; SLESAREVA, Ye.N.

Effect of tungsten on the oxidation of titanium. Fiz. met. i  
metalloved. 14 no.3:400-405 S '62. (MIRA 15:9)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy  
institut obrabotki tsvetnykh metallov pri Vysshem sovete  
narodnogo khozyaystva.  
(Titanium--Corrosion) (Tungsten)

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S/136/62/000/002/003/004  
E021/E135

18.8300

AUTHORS: Layner, D.I., and Slesareva, Ye.N.  
TITLE: The influence of some alloying additions on the oxidation of titanium  
PERIODICAL: Tsvetnyye metally, <sup>35</sup>no.2, 1962, 70-76  
TEXT: The influence of 0-15% Al, 0-9% Zr, 0-17.7% W, 0-8.7% Nb, 0-17.7% Ta, 0-3.2% Si, 0-8% Mo, 0-6% V, 0-6% Mn and 0-9% Sn was investigated. The change in weight during oxidation was determined and phase analysis of the scale and metallic layer under the scale was carried out. Microhardness determinations to find the depth of penetration of oxygen were also made. Results showed that W, Ta, Nb, Si and Mo lower the rate of increase in weight; Zr, Mn and Al have little effect on the weight increase; and V and Sn increase the rate of change in weight. Fig.1 shows the increase in weight ( $\text{mg/cm}^2 \cdot 10^{-4}$ ) of alloys containing W, Ta, Nb, Si and Mo during oxidation against time (hours). After 7 hours at 900 °C alloys containing Si and W form a thicker scale (0.035-0.040 mm) than alloys containing Ta or Nb (0.01-0.15 mm). Unalloyed Ti has a scale 0.1 mm thick.  
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The influence of some alloying ...

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E021/E135

Oxygen penetrated the alloy containing Si to a depth of 0.08 mm, the alloy containing Ta to 0.15 mm, and the alloy containing Nb to a depth of 0.30 mm. The alloy containing W had oxygen penetration to a depth of 0.65 mm. There is a layer of fine grained  $WO_3$  underneath the layer of coarse grained rutile. Fig.5 shows the increase in weight during oxidation against time for alloys containing Al and Zr. The scale on the alloy containing Al consists only of rutile. There are additional lines on the X-ray photographs which do not correspond to either Al or  $Al_2O_3$ . Fig.7 shows the increase in weight of alloys containing V, Sn and Mn against time. Phase analysis of the scale on the alloy containing tin consisted of  $TiO_2$  on the surface,  $TiO$  under the rutile and metallic tin at the metal-scale interface. The phase analysis of the alloy containing V showed only rutile. There are 8 figures, 1 table and 12 references: 4 Soviet-bloc and 8 non-Soviet-bloc. The four most recent English language references read as follows:  
Ref.1: Steel, v.143, no.17, 1958, 46.

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The influence of some alloying ... S/136/62/000/002/003/004  
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- Ref.3: H.W. Maynor, R.E. Swift, Corrosion, no.6, 1956, 49.  
Ref.6: H. Margolin, Metal Progress, v.71, no.2, 1957, 86.  
Ref.9: F.W. Fink, R.S. Peoples. Titanium Metallurgical  
Laboratory, Battelle Memorial Institute TML, 1956, I, 29,  
pp.60, 30, ICI, v.2, no.3, 1956, 95.

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L 18851-66 EWT(m)/EWP(t) JD

ACC NR: AT6006473

SOURCE CODE: UR/2680/65/000/024/0061/0065

AUTHOR: Bay, A. S.; Slesareva, Ye. N.; Krupnikova-Perlina, Ye. I.; Chetveryakov, N. I.; Adushkina, N. A.

ORG: State Scientific-Research Planning Institute of Alloys and the Processing of Nonferrous Metals (Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut splavov i obrabotki tsvetnykh metallov)

TITLE: A study of amorphous structures in the As-S-Ge-Se alloy system

SOURCE: Moscow. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut splavov i obrabotki tsvetnykh metallov. Trudy, no. 24, 1965. Metallovedeniye i obrabotka tsvetnykh metallov i splavov (Metal science and the treatment of nonferrous metals and alloys), 61-65

TOPIC TAGS: crystal polymorphism, arsenic, sulfur, germanium, selenium, electron microscopy, thin film, crystal structure

ABSTRACT: Vacuum-spray coated layers of As-S-Ge-Se and As-S-Se were studied by electron microscopy. Carbon replication was used to maintain the thermally sensitive structures under the electron beam. Satisfactory replicas were made by using

Card 1/2

L 18851-66  
ACC NR: AT6006473

the following procedure: (1) carbon deposition, (2) dissolution of the alloy layer in a fresh 10% KOH solution, and (3) mounting the replica onto a fine grid. Electron micrographs (X30,000) of the above two systems were compared with replicas obtained from bulk ingots. Three different types of structural inhomogeneities were noted in the evaporated films: the first was due to uneven crystallization, the second due to the restraining influence of the various components and the third due to bulk formation. The matrix or base structure of the layers was granular with the granules assuming different dimensions. Both macro (X2) and microstructures (X440) were obtained for the alloy ingots by using an etching containing KOH, H<sub>2</sub>O, glycerin and H<sub>2</sub>O<sub>2</sub>. Similar inhomogeneities were found and these were related to the thin film structures. These data did not contradict the view of Kolomiyets who stated that immiscible glass-like phases were formed in the As-Se-Ge system. It was concluded that the inhomogeneities formed in thin films and in ingots of the above alloy systems were the same. Orig. art. has: 4 figures.

SUB CODE: 20, 11/ SUBM DATE: 00/

ORIG REF: 001/

OTH REF: 000

Card 2/2

vmb

L 18852-66 EWT(m)/EPF(n)-2/EWP(t) IJP(c) JD/JG/WB 26  
ACC NR: AT6006474 SOURCE CODE: UR/02680/65/000/024/0075/0085 B41

AUTHOR: Layner, D. I.; Solov'yev, V. Ya.; Kuznetsova, M. I.; Krupnikova-Perlina, Ye. I.; Slesareva, Ye. N.

ORG: State Scientific-Research Planning Institute of Alloys and the Processing of Nonferrous Metals (Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut splavov i obrabotki tsvetnykh metallov)

TITLE: Study of the oxidation of niobium 44,55 44,55 ✓

SOURCE: Moscow. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut splavov i obrabotki tsvetnykh metallov. Trudy. no. 24, 1965. Metallovedeniye i obrabotka tsvetnykh metallov i splavov (Metal science and the treatment of nonferrous metals and alloys), 75-85

TOPIC TAGS: niobium, niobium oxide, oxidation, oxide formation, polymorphism, crystal structure analysis, lattice parameter, temperature dependence 44,55

ABSTRACT: The niobium (melted in an electron-beam furnace) had the following composition: 0.1-0.8% (by wt) C, 0.01-0.05% O<sub>2</sub> and 0.01-0.05% N<sub>2</sub>. The ingots were forged, machined and vacuum annealed at 1250°C. Kinetic oxidation curves were ob-

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ACC NR: AT6006474

tained at temperatures ranging in 100° intervals from 600 to 1200°C and the relation  $\Delta m^k = s\tau$  (where  $\Delta m$  is the weight gain in g/cm<sup>2</sup>,  $\tau$  is time in min) was obeyed;  $k$  varied as a function of oxidation time and temperature from 0.5 to 2.0. Up to 800°C, a brittle scale formed while at higher temperatures the scale was sintered and became denser and stronger. At constant oxidation times, the sintering caused  $k$  to decrease with increase in temperature. The oxide structures were analyzed by x-ray diffraction. At 500 to 800°C, two layers of  $\alpha$ -Nb<sub>2</sub>O<sub>5</sub> were formed and the lower scale of  $\alpha$ -Nb<sub>2</sub>O<sub>5</sub> had a texture due to contact with the metal. This texture endured oxidation for 3.5 hr at 800°C. Above 800°C,  $\alpha$ -Nb<sub>2</sub>O<sub>5</sub> changed to  $\beta$ -Nb<sub>2</sub>O<sub>5</sub>, especially in the outer layer since  $\alpha$ -Nb<sub>2</sub>O<sub>5</sub> was preserved in the inner scale even after prolonged oxidation. Lattice parameters and intensities were tabulated for oxidation at 1000°C and 4.5 hr for both the external and inner sides of the scale; the oxides  $\beta$ -Nb<sub>2</sub>O<sub>5</sub> and NbO were present, the NbO forming as early as 45 sec at 1000°C. The texture of the scales was further studied by means of electron diffraction and data showed that for oxidation at 1020°C for 20 sec the  $\beta$ -Nb<sub>2</sub>O<sub>5</sub> and NbO had no texture but after 30 sec a texture was observed. For NbO, a (111) texture was determined. The fact that the texture persisted even during the  $\alpha$ -Nb<sub>2</sub>O<sub>5</sub> +  $\beta$ -Nb<sub>2</sub>O<sub>5</sub> transformation confirmed the hypothesis that the oxide formation mechanism was independent of phase composition. Orig. art. has: 5 figures, 3 tables, 1 formula.

SUB CODE: 11, 20, 13/SUBM DATE: 00/

ORIG REF: 003/

OTH REF: 006

Card 2/2 *HW*

L 18853-66 EWP(e)/EWI(m) WH  
ACC NR: AT6006475

SOURCE CODE: UR/2680/65/000/024/0086/0092

AUTHOR: Layner, D. I.; Tsylin, M. I.; Slesareva, Ye. N.; Bay, A. S. B+1 59

ORG: State Scientific-Research Planning Institute of Alloys and the Processing of Nonferrous Metals (Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut splavov i obrabotki tsvetnykh metallov)

TITLE: The mechanism of electroconductivity in rutile <sup>15</sup>TiO<sub>2</sub> and the application of the Wagner-Khauffe theory to oxidation processes in titanium and its alloys

SOURCE: Moscow. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut splavov i obrabotki tsvetnykh metallov. Trudy, no. 24, 1965. Metallovedeniye i obrabotka tsvetnykh metallov i splavov (Metal science and the treatment of nonferrous metals and alloys), 86-92

TOPIC TAGS: titanium, titanium alloy, oxidation, oxide formation, titanium dioxide, electric conductivity, diffusion coefficient, defect structure

ABSTRACT: The effects of alloying on the oxidation of titanium were studied. Kinetic curves-- $\Delta m$  (mg/cm<sup>2</sup>) as a function of  $\tau$  (min)--at 700°, 900° and 1000°C showed that the oxidation of Ti, Ti-Nb (5 at %) and Ti-Ta (5 at %) in air and in steam was

Card 1/3

L 18853-66

ACC NR: AT6006475

parabolic and therefore, diffusion controlled. Alloying slowed the oxidation especially at the start and reached a low of 0.01% for Nb and Ta additions. A logarithmic relationship was observed between the ratio  $\Delta m_{Ti}/\Delta m_{alloy}$  as a function of alloying for the same oxidation temperature and time. The ratio of impurities was equal to the ratio of the diffusion coefficients of the ions in the scale:

$$\Delta m = k_{pTi} \tau^{\frac{1}{2}} = 2D_{Ti} \tau^{\frac{1}{2}}$$

$$\text{and } \frac{\Delta m_o}{\Delta m} = \frac{D_{Ti}}{D_{alloy}}$$

Since  $D$  was proportional to the concentration of defect ions,  $\Delta m$  was proportional to concentration during oxidation. An analysis of the data was made by applying the Wagner-Khauffe theory of electroconductivity in oxides. A direct correlation was made between the conductivity of the scales measured at room temperature and  $\Delta m_o/\Delta m$  for the alloys at different temperatures of oxidation in air and steam. By increasing the concentration of pentavalent ions, the electroconductivity of the scales at room temperature rose by several orders as a result of the lowering of Ti ions in interstitial positions. During oxidation, the specific conductivity is a result of nonstoichiometric defects in the scale while the magnitude of the change

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L 18853-66

ACC NR: AT6006475

in conductivity is dependent on the actual types of defects and their charge valency. Difficulties in explaining quantitative data are due to the formation of multi-layered scales and the dependence of their concentration gradients on temperature and time of oxidation. Orig. art. has: 4 figures, 2 formulas.

SUB CODE: 11/

SUBM DATE: 00/

ORIG REF: 013/

OTH REF: 006

Card 3/3 *hw*



L 15180-66 EWP(e)/EWT(m)/EWA(d)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b) IJP(c) MJW/JD/JW/WB

ACC NR: AP6002666

SOURCE CODE: UR/0126/65/020/006/0864/0867

AUTHOR: Layner, D. I.; Bay, A. S.; Slesareva, Ye. N.; Tsypin, M. I.

ORG: Giprotsvetmetobrabotka

TITLE: Certain features of the process of the oxidation of titanium

SOURCE: Fizika metallov i metallovedeniye, v. 20, no. 6, 1965, 864-867

TOPIC TAGS: titanium, metal oxidation, metal scaling, activation energy, cation / VTl-1 titanium

ABSTRACT: Some quantitative features of the process of the oxidation of VTl-1 titanium at temperatures above 800°C in an air and water-vapor atmosphere at atmospheric pressure are presented. The published literature specifies the rate constants and activation energy for these regimes only for the case of the oxidation of Ti in O<sub>2</sub> and moreover it has been shown that during the oxidation in air of powdered-metal specimens containing 96% Ti the activation energy at temperatures above 800°C differs from the activation energy of oxidation in O<sub>2</sub>. As for the process of the oxidation of Ti in water vapors at atmospheric pressure, even less is known about it. Accordingly, the authors performed a metallographic study of the oxidation of Ti in air with the object of determining the activation energies of the total absorption of oxygen, scaling, and absorption of oxygen by the metal base, as a function of the temperature

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UDC: 539.21

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ACC NR: AP6002666

$D, K_p, \text{cm}^2/\text{sec}$   
 $K_l, \text{cm}/\text{sec}$

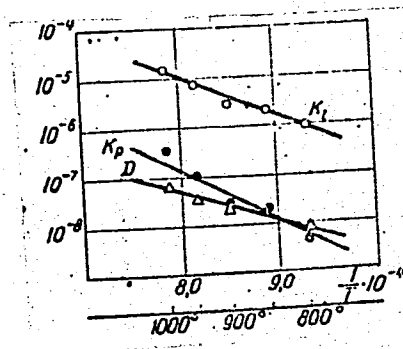


Fig. 1. Temperature dependence of parabolic rate constant  $K_p$  and linear rate constant  $K_l$  of scale growth, as well as of the coefficient  $D$  of the diffusion of Ti ions in scale, for oxidation of Ti in water vapors

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dependence of the parabolic rate constants of scale growth which showed that the activation energies  $Q_1$  and  $Q_2$  are virtually identical (about 67 kcal/mole-deg) whereas the activation energy  $Q_3$  of the rate constant of oxygen absorption by the metal base is  $\sim 74$  kcal/mole-deg. The concomitant study of the oxidation of Ti in water vapors showed that in this case the diffusion of ions of the metal through the scale plays a major role and may be described by the relation  $K_p/D = 2$ , where  $K_p$  is the parabolic scale-growth rate constant and  $D$  is the diffusion coefficient of metal ions. The activation energies calculated on this basis are 46, 40 and 30 kcal/mole-deg, respectively (Fig. 1) Comparison of  $K_p$  and  $D$  in the case of oxidation in water vapors at 800-1000°C shows that cation diffusion plays a principal role in the formation of scale under these conditions. Orig. art. has: 1 formula, 1 table, 5 figures.

SUB CODE: 07, 11, 20/ SUBM DATE: 16Jul65/ ORIG REF: 007/ OTH REF: 004

Card 3/3 vmb

ACC NR: AP6036114

(N)

SOURCE CODE: UR/0365/66/002/006/0692/0699

AUTHOR: Layner, L. I.; Slesareva, Ye. N.; Tsypin, M. I.; Bay, A. S.

ORG: Scientific Research Institute for Alloys and the Working of Nonferrous Metals  
(Nauchno-issledovatel'skiy institut splavov i obrabotki tsvetnykh metallov)

TITLE: Oxidation mechanism of titanium alloys containing up to 11% aluminum

SOURCE: Zashchita metallov, v. 2, no. 6, 1966, 692-699

TOPIC TAGS: titanium containing alloy, metal oxidation, aluminum

ABSTRACT: A study was made of binary titanium-aluminum alloys containing 0.01, 0.87, 2.85, 5.05, and 11.20 weight percent aluminum. The alloys were twice melted in an arc furnace with consumable electrodes, and then forged, rolled, annealed, and planed to eliminate the oxygen-saturated layer. The polished samples had dimensions of 1.2 x 1.2 x 1.5 cm, with an opening 2 mm in diameter. A day before the experiment, the samples were degreased in benzene and stored in a desiccator. The samples were charged into a resistance furnace with a working chamber 150 x 400 mm, heated to the given temperature. Temperature variations in the furnace did not exceed  $\pm 5\%$ . In some of the experiments steam was supplied at a temperature of 600°. In this case, the atmosphere of the furnace contained 60-70% water vapor. The rate of oxidation was determined by the gravimetric method. The effect of alloying on heat resistance was evaluated from the

UDC: 620.193.5

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relative change in weight of the samples. Phase analysis of the scale and of the layers beneath the scale was done on a Type URS-501 diffractometer. The experimental results with respect to the relative weight change of the alloys as a function of temperature, holding time, and composition of the gas medium are shown in a series of curves and tables. Based on the experimental data it is concluded that two basic mechanisms play a role in the process of the oxidation of titanium-aluminum alloys: 1) acceleration of diffusion through the scale due to a shift of the ionic equilibrium as a result of the entrance of trivalent aluminum ions into the titanium dioxide lattice; 2) slowing down of the oxidation when the amount of aluminum oxide in the scale increases to such an extent that there is formed a more or less thick layer of  $Al_2O_3$  which hinders the diffusion of the titanium ions. Orig. art. has: 2 figures and 4 tables.

SUB CODE: 11/ SUBM DATE: 21Dec65/ ORIG REF: 015/ OTH REF: 012

Card 2/2

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSING AND PROPERTIES INDEX

SLESAREVICH, V. V.

Investigation and technological characteristics of andalusite rocks. N. I. VORONIN, V. V. SLESAREVICH, AND E. S. KRYLOVA. *Ogneupory*, 14 [12] 521-32 (1949).—In addition to andalusite, the rocks also contain considerable amounts of corundum, kaolinite, pyrophyllite, and quartz. Alumina content ranges from 21.43 to 82.99%. On the basis of chemical-mineralogical composition, the rocks are classified into four groups: (1) rocks of corundum composition with 82.99%  $Al_2O_3$ ; (2) rocks of mixed composition (corundum, andalusite, quartz) with considerable admixtures of kaolinite and pyrophyllite, containing 47.89 to 49.76%  $Al_2O_3$  and having an ignition loss of 8.0 to 10.43%; (3) rocks of clay composition with small admixtures of corundum and andalusite and containing 51.49 to 58.37%  $Al_2O_3$ ; and (4) rocks of andalusite-quartzite composition with 21.43 to 42.93%  $Al_2O_3$ . At 1400°C. there was no transformation of the quartz and andalusite. At 1500°C. there was noticeable mullitization of andalusite and clay components and also transformation of the quartz into cristobalite. Further rise in temperature resulted in more complete transformation of the andalusite, more perfect crystallization of the mullite, and also reaction between the silica and alumina (from other minerals) with the formation of mullite. Rocks of groups 1 and 2 fired at 1400°C. showed an increase in specific gravity of 0.03 to 0.086 while those of group 3 and some of group 4 showed a decrease of 0.058 to 0.087. With a rise in temperature to 1500°C. and then to 1600°C., all groups except 1 showed a decrease of specific gravity. The presence of a certain endothermic effect at 60° to 150° is caused by the removal of adsorbed water, while the exothermic effect at 270° to 400° is caused by the burning of the natural organic admixtures. All samples showed an endothermic effect (maximum at 550° to 610°) which was caused by the dehydration of aqueous aluminosilicates (kaolinite, pyrophyllite). Along with this endothermic effect, there was also the endothermic effect resulting from the change of  $\beta$ -quartz into  $\alpha$ -quartz and, as a result of this, the latter was not shown separately on the differential curves of thermal analysis. All groups except 1 showed an exothermic effect at 940° to 960°. which is usual for aqueous aluminosilicates; this was particularly well defined for group 2, which contains considerable amounts of kaolinite. Some rocks of group 3 showed an endothermic effect at 1080°, and some of group 2 at 1170° and 1330°, but the causes of these have not been determined. Groups 1 and 3, which are lean in kaolinite, started to expand at 300° to 500° probably because of the considerable content of pyrophyllite; these began to sinter at about 1050° to 1100°, giving a shrinkage of 1.2 to 1.7% at 1500°. Group 2, which is rich in kaolinite, showed a shrinkage at 150° to 200° and it continued to increase until it reached 4.2 to 5.0% at 1500°. Mixes were made of all groups, using as a binder Latna clay having a refractoriness of 1740° and analyzing  $SiO_2$  50.53,  $Al_2O_3$  36.46,  $Fe_2O_3$  0.82,  $CaO$  0.54,  $MgO$  0.20, and ignition loss 11.48%. The rocks were ground to give 0.75 to 0.5 mm.

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

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20%, 0.5 to 0.2 mm. 30%, and <0.2 mm. 50%. Semidry mixes were made with 15% clay and 3.7 to 6.5% water; plastic mixes were made with 35% clay and 13.8 to 17.0% water except for group 2 for which 35% was found excessive and 20% was used. Cylinders 42 mm. in diameter were made from semidry mixes, using a pressure of 300 kg./cm.<sup>2</sup>, while those from plastic mixes were made by hand-ramming. All samples were dried for 2 to 3 days at room temperature; those made from plastic mixes were also dried for 16 hr. at 110° to 120° in a thermostat. All samples were fired in saggars in an oil-fired furnace for 36 hr., including a 3-hr. holding at the final temperature (not given). Color of the samples ranged from white to yellow, with a varying number of brown fusion spots. Samples from semidry mixes had practically no air shrinkage; for those from plastic mixes it ranged

from 2.6 to 4.6% and varied with the amount of water and clay. Total shrinkage of samples containing considerable amounts of kaolinite was greater than for others. For samples made from semidry mixes, total shrinkage was 0.9 to 1.8% for those lean in kaolinite and 4.1 to 6.2% for those rich in kaolinite; for those made from plastic mixes, the total shrinkages were 4.8 to 6.1% and 8.5 to 12.2%, respectively. Water absorption and apparent porosity were, as a rule, greater for samples from semidry mixes than for samples from plastic mixes. Lowest water absorption (5.8 to 7.6%) and apparent porosity (13.4 to 17.4%) were shown by samples having large kaolinite content; greatest water absorption (8.6 to 11.0%) and apparent porosity (22.8 to 24.8%) were shown by those rich in corundum or quartz. Volumetric weight ranged from 2.09 to 2.63 gm./cc. and depended primarily upon mineralogical composition rather than upon method of shaping; samples made from semidry mixes had a greater volume weight than those from plastic mixes. Compressive strength ranged from 236 to 1000 kg./cm.<sup>2</sup> for samples from semidry mixes and from 230 to 900 kg./cm.<sup>2</sup> for samples from plastic mixes. Refractoriness ranged from 1720° to 1850° and was completely dependent upon chemical composition. All samples had good heat resistance; destruction did not occur after 25 heat-shock cycles (rapid heating to 850° and cooling in a cold water stream). Samples having a high content of kaolinite, pyrophyllite, or free quartz developed cracks earlier than others during heat-shock tests. Despite differences in composition and in refractoriness, initial softening of all samples under 2 kg./cm.<sup>2</sup> occurred within the narrow interval of 1420° to 1520°; 40% compression started at 1550° to 1670°. Rocks of group 1 are suitable for corundum shapes with a refractoriness of about 1820°; those of group 3 are suitable for plugs, nozzles, and other shapes with 15 to 55% Al<sub>2</sub>O<sub>3</sub>; those of group 2 are suitable for shapes of high-alumina content and increased density. B.Z.K.

S/ESAREVICH, U.U.

15  
A new source of high-quality clay in Far East. V. V. Slesarevich and T. I. Yakovleva (Inst. Refractory Materials, Leningrad). *Ogneupory* 22, 240-52 (1957).—A kaolin-bearing sand from large deposits in East Dal'n, put through a lab. air sepn. process yielded from 20% to 30% of high-quality kaolin with m.p. 1770°.  $Al_2O_3$  +  $TiO_2$  content 36.2,  $SiO_2$  50.0,  $Fe_2O_3$  0.51,  $CaO$ ,  $MgO$ , and  $K_2O$  1.53%. H. L. Olin.

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1/01 #6 not #22



SLESAREVICH, V.V., inzh.; SMIRNOVA, N.I., inzh.

Fireclays of the Barzas deposit. Trudy Inst. ogneup. no.35:3-25 '63.  
(MIRA 17:12)

L 63106-65 EWT(m)/EPF(c)/EPF(n)-z/ENG(m) WH/DM

ACCESSION NR: AP5014546

UR/0089/65/018/005/0528/0529  
621.039.517.5

AUTHOR: Barchuk, I. F.; Nazarchuk, M. M.; Ogorodnik, S. S.; Pilipets, D. T.; Slesarevskiy, S. O.

TITLE: Experimental study of the thermal conditions of the fuel elements of the VVR-M reactor

SOURCE: Atomnaya energiya, v. 18, no. 5, 1965, 528-529

TOPIC TAGS: reactor fuel element, fuel element temperature, active zone temperature distribution, coolant rating/ VVR-M

ABSTRACT: The authors measured the temperatures of the fuel rods of the VVR-M reactor in order to choose the optimal conditions for heat transfer from the active zone when operating at different power levels, and also to determine the heat transfer margin built into the existing cooling system. The tests consisted of measuring the temperature distribution on the surface of the fuel element relative to the height and radius of the active zone, determining the influence of the control rods on this distribution, and choosing the optimal coolant flow. The temperatures were measured with thermocouples fastened to the surfaces of all the fuel elements. The method of securing the thermocouples is described. It was found

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ACCESSION NR: AP5014546

that the fuel-element temperature is practically the same on both sides, and that the highest thermal stresses in the active zone is on the periphery, near the beryllium reflector. The measurements to determine the optimal coolant flow were therefore made in the peripheral layer of the active zone, and consisted of finding the maximum reactor power corresponding to each rate of coolant flow. A nomogram for determining the optimal reactor operation is plotted on the basis of the results. It is concluded that the cooling system of the VVR-M reactor has ample margin for reliable operation at its 12 MW power rating. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 24Mar64

NR REF SOV: 003

ENCL: 00

OTHER: 000

SUB CODE: NP, TO

Card 2/2

~~SLESINGER~~  
SLESINGER, J.

Nikel alloys used as basic metal for the production of oxide cathodes.

p. 272 (Sdelovaci Technika) Vol. 5, no. 9, Sept. 1957, Praha, Czechoslovakia

SC: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

PAVLOVSKY, Václav; SLESINGER, Bohumir

Experience in making parts from casting resins. Stroj vyr  
12 no.4:242-247 Ap'64.

1. Rukov, sdruzeny podnik ONV, Decin.

SLESINGR, Lubomir

"Secretion of Bilirubin, after its administration, from the Blood Serum of Some Domestic Animals," Veterinarni Medicina, Prague, No. 11, Nov 60, p. 845.

SLESINGER, Lubomir

"Results of Iodo-serum Test in Horses. (Woolf's Test)," Prague, Veterinarni Medicina,  
No. 12, Dec 60, p. 903.

SLESINGR, Lubomir

"Results of Iodo-serum (Woolf's Test in Sick Dogs," Prague, Veterinari Medicina,  
No. 12, Dec 60, p. 909.



SLESINGR, Lubomir

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: DVM

Affiliation: Internal Dept Kraj Veterinary Hospital Senica N. Myj (Inžerní odd. Krajské ,  
veterinární nemocnice)

Source: Prague, Sborník CSAZV Veterinární Medicina, Vol 6(34), No 9, Sep 61; pp 727-732

Data: "Enzymatic Studies of Ejaculate of Low-Fertility Bulls"

GPO 981643

SLESINGER, Lubomir  
SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: DVM

Kraj Veterinary Hospital, Senica "n. Myj." /not identified/ Krajska  
Affiliation: veterinarni nemocnice/

Sources: Prague, Veterinarni Medicina, Vol 6(34), No 10, Oct 1961; pp 799-806

Data: "Course of the Activity of some Enzymes in the Serum of Dogs Following Administration  
of CCl<sub>4</sub> After Ligation-Induced Cardiac Infarct and Thoracotomy"

GPO 981643

SIEGIMUND, I.  
SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: DVM

Affiliation: /Senica nad Myjavou

Source: Prague, Veterinarstvi, Vol 11, No 10, Oct 1961; pp 394-395

Data: "Congenital Esophageal Stenosis in Puppies and Cardiospasm in Dogs"

GPO 981643

SLESINGER, L.

[illegible]

SLESINGER, L

CZECHOSLOVAKIA

SLESINGER, L., DVM.

Senica nad Myjavou

Prague, Veterinarstvi, No 3, 1963, pp 123-124

"Bromthalein and its Importance for Domestic Animals."

L 04537-67 CK

ACC NR: AP6031998 (4) SOURCE CODE: PO/0071/66/000/006/0336/0337

AUTHOR: Slesingr, Lubomir (Doctor; Brno)

ORG: none

TITLE: Personal experience with the use of Chloropromazine in tetanus treatment

SOURCE: Medycyna weterynaryjna, no. 6, 1966, 336-337

TOPIC TAGS: veterinary medicine, tetanus, Chloropromazine

ABSTRACT: The author reported on treatment of 13 horses and 3 dogs for tetanus with Chloropromazine (produced in Poland under the name "trankwilina"). He used only the preparation for intravenous injections made by the French Specia "Largactil" plant. Side effects were also studied. "Largactil" had no effect on the blood picture. Results with the dogs were very good. The author believes that Chloropromazine is the best extant means of treating horses and dogs for tetanus.

[W.A. 50]

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SUB CODE: 02, 06/ SUBM DATE: none/

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CZ ECHOSLOVAKIA

SLESINGER, L.; Research Institute of Animal Fodder (Vyzkumny Ustav Krmivarsky), Pohorelice.

"Influence of Arsanilic Acid in Feed Mixtures on the Activities of Transaminase (GOA, GPA, and LAP) and on the Blood Cell Count and Bilirubin Level in the Blood Serum of Hens."

Prague, Veterinarni Medicina, Vol 11, No 12, Dec 66, pp 735-739

Abstract [Author's English summary modified]: Biochemical investigation of the effect of arsanilic acid on transaminase activities did not reveal any changes due to its action. Administration of 20 g of arsanilic acid in 220 kg of food mixture for a period of 3 months did not produce any toxic effects. The only effect noticed was an increase in the number of erythrocytes, which is considered to be favorable. 1 Figure, 2 Tables, 5 Western, 8 Czech, 3 East German references. (Manuscript received 25 Oct 65).

1/1

CZECHOSLOVAKIA

SLESINGER, L.; Research Institute of Animal Nutrition (Vyzkumny Ustav Vyzivy Zvirat), Pohorelice u Brna.

"Concentration of Certain Metabolites in the Blood Serum of Chickens."

Prague, Veterinarni Medicina, Vol 12, No 1, Jan 67, pp 49 - 53

Abstract [Author's English summary modified]: The levels of macro- and microelements, alkaline phosphatase, GOT, GPT, and LAP transaminase activities in the serum of 9 week old chickens of both sexes were investigated. The blood serum contains relatively high amounts of P, low of Cu, and a high activity of LAP. 3 Tables, 5 Western, 6 Czech references.



EXCERPTA MEDICA Sec 9 Vol 13/9 Surgery Sept. 59

4959. REPLACEMENT OF THE AURICLE - Nahrada ušního boltce - Šlesinger  
M. Klin. Plast. Chir., Brno - ACTA CHIR. ORTHOP. TRAUM. CEC. 1958,  
25/5 (369-375) Illus. 12

The author prefers to use a tubular transverse skin flap from the neck and the patient's own costal cartilage. The cartilaginous skeleton is fixed subperiostally by Karfik's method. Final modelling of the ear is performed subsequently.

(IX, 19)

SLESINGER, M.

Facial hemiatrophy and its treatment. Cesk. dermat. 40 no.4:  
239-244 Ag '65.

1. I. stomatologická klinika lékařské fakulty University  
J.E. Purkyně v Brně (prednosta prof. dr. M. Filipínský).

SLESORYUNAS, V. I., Candidate of Tech Sci (diss) -- "Investigation of the operation of the fuel pump on the KD-35 tractor with intake valves". Kaunas, 1959. 23 pp (Min Higher Educ USSR, Lithuanian Agric Acad), 130 copies (KL, No 21, 1959, 116)

SLESZYNSKI, Tadeusz

The development and production of the Gdansk Shipyard. Przegl  
techn 79 Special issue:376-380 Je '61.

ISPIAVNIKOVA, A.G.; SLUTKINA, L.A.; MOGOVIN, Z.A.

Specific effect of cellulose nitrate on the radical polymerization  
of some vinyl monomers. Vysokom. soed. 3 no.1:46-49 Ja '61.  
(MMPA 14:2)

1. Moskovskiy tekstil'nyy institut.  
(Nitrocellulose) (Vinyl compounds)  
(Polymerization)

ISPRAVNIKOVA, A.G.; SLETKINA, L.S.; ROGOVIN, Z.A.

Synthesis of new cellulose derivatives. Part 22: Synthesis  
of a graft copolymer of cellulose with polyvilylidene  
chloride. Vysokom. soed. 4 no.12:1790-1795 D '62.  
(MIRA 15:12)

1. Moskovskiy tekstil'nyy institut.  
(Cellulose)  
(Vinyl compound polymers)

SHCHERBA, I.I.; POLYAKOV, A.I.; BUDOVIN, I.A.

Some regularities in the nucleophilic substitution of various  
carboxylic esters with hydrohalides. Vysokom. soed. 7 no.2:199-  
204 1965. (MIRA 18:3)

1. Moskovskiy tekstil'nyy institut.

ACCESSION NR: AT4017410

S/0000/63/000/000/0055/0059

AUTHOR: Sletkina, L.S.; Bargamova, M.D.; Rogovin, Z. A.

TITLE: Synthesis of new derivatives of cellulose and other polysaccharides. XXXVI.  
Synthesis of a mixed acetic and hexafluoroisobutyric acid ester of cellulose

SOURCE: Tsellyuloza i yeye proizvodny\*ye, sbornik statey (Cellulose and its derivatives).  
Moscow, 1963, 55-59

TOPIC TAGS: polysaccharide, cellulose, cellulose ester, cellulose acetate, cellulose  
hexafluoroisobutyrate, fluoridated cellulose ester

ABSTRACT: Results are given of attempts to accomplish the synthesis of this, as yet unknown, type of F-containing cellulose ester which may lead to valuable new technical materials, such as less hygroscopic and more heat-resistant oil-and water-repellent films, lacquers, etc. Bis-trifluoromethylketene,  $(CF_3)_2C:C:O$ , prepared at the Institut elementoorganicheskikh soedineniy AN SSSR (Institute of Metalloorganic compounds) was explored as the esterifying agent in a series of 48-hour tests at 20 C in a heterogeneous dioxan medium, with and without a catalyst, but failed to produce yields higher than  $\delta \approx 7$ . A low-substituted cellulose ester was then synthesized for the first time with  $\alpha$ -hydroperfluoroisobutyric acid, and a mixed cellulose ester was prepared with

Card 1/2



ACCESSION NR: AT4017410

acetic and  $\infty$ -hydroperfluoroisobutyric acids which contains up to 20% F. Increasing the F content in the molecule to 20% markedly reduced the hygroscopic properties of the ester and of films made from it, as well as the temperature of vitrification, and increased the elasticity of these cellulose derivatives. Quantitative data are given on the hygroscopic properties, swelling, and sedimentation of some cellulose esters. "The studies on the hygroscopicity and swelling of complex cellulose esters were carried out by T. Alishoyeva at NIKFI under the direction of K. K. Podgorodetskiy. The thermomechanical properties of the cellulose esters were determined in the laboratory of polymer physics of the Institute of Metalloorganic Compounds by K. A. By\*chko and Ye. A. Markina. We would also like to thank I. L. Knunyants for his valuable advice." Orig. art. has: 2 tables and 1 graph.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Metallo-organic Compounds); Moskovskiy tekstil'ny\*y institut (Moscow Textile Institute)

SUBMITTED: 29Jun62

DATE ACQ: 06Jan64

ENCL: 00

SUB CODE: CH

NO REF SOV: 000

OTHER: 000

Card 2/2

L 10258-63 EWT(d)/FCG(w)/BDS/ES(t)-2 AFPTC/APGC/ASD Pg-4/Ph-4/Pk-4/  
Pl-4/Pc-4/Pq-4 BC/IJP(C)

ACCESSION NR: AP3001093

S/0103/63/024/006/0815/0819

82

AUTHOR: Mamikonov, A. G. (Moscow); Sletova, T. L. (Moscow)

TITLE: Error-correcting codes<sup>6</sup> with a multicharacter alphabet in frequency-type  
telemechanical systems<sup>9</sup>

SOURCE: Avtomatika i telemekhanika, v. 24, no. 6, 1963, 815-819

TOPIC TAGS: error-correcting codes, frequency-type telemetering

ABSTRACT: Large capacities of coded frequency-combination systems permit using some methods for detecting and correcting errors in code transmission. Types of code-transmission distortions are considered. Arrangement of code points is analyzed for the case when the possible code elements form a sequence. With a known number of errors to be detected or corrected, the space is determined in which the assigned number of useful code combinations can be placed (geometrical interpretation of codes). A formula is offered which supplies the exact number of permitted combinations or their minimum. Orig. art. has: 1 figure and 14 formulas.

ASSOCIATION: none

Card 1/2/

KONDRASHOVA, M.N.; Prinimali uchastiye: NIKOLAYEVA, L.V.; SKOKOVA, N.V.;  
SLEV, D.M.; TIMOFEYEVA, L.M.

Effect of K-strophantin on phosphorylation and respiration of  
sarcosomes. Vop. med. Khim. 9 no. 3:273-279 My-Je '63.  
(MIRA 17:9)

1. Institut farmakologii i khimioterapii AMN SSSR i kafedra  
biokhimii zhivotnykh Moskovskogo gosudarstvennogo universiteta imeni  
Lomonosova.

ANASTASATU, G.; BERCEA, G.; GEORGESCU, P.; KAUFMAN, S.; SLEV, J.

Studies on the dosage of p-aminosalicylic acid in the treatment of tuberculosis. Gruzlica 32 no.8:627-628 Ag '64.

1. Z Institutu Medycyny i Farmacji Kliniki Ftizjologicznej,  
Bukareszt -- Rumunia.

EVGHENIDE, C., ing; SLEV, V., ing.; SOCOL, S., ing.

Interpretation of the signals and indications received from a central supervisory-control station set up for recording the natural and artificial eruptions of wells. Petrol se gaze 13 no.3:121-125 Mr '62

1. Institutul de Cercetari pentru Foraj si Extractie (for Evghenide).
2. Schela Boldesti (for Slev). 3. Ministerul Industriei Petrolului si Chimiei (for Socol).

EVGHENIDE, C., ing.; SLEV, V., ing.; SOCOL, S., ing.

Interpretation of signals and indications, concerning the deep pumping wells, received at a central station for the telecontrol of crude oil extraction. Petrol si gaze 13 no.4:177-181 Ap '62.

1. Institutul de Cercetari pentru Foraj si Extractie (for Evghenide). 2. Schela Boldesti (for Slev). 3. Ministerul Industriei Petrolului si Chimiei (for Socol).

L 31733-66 I WE

ACC NR: AP6021167

SOURCE CODE: RU/0007/65/016/03-/0158/0171

AUTHOR: Evghenide, C. (Engineer); Slev, V. (Engineer)

42  
B

ORG: none

TITLE: Closed-system transfer of crude oil and gas production and some new types of separators and flow meters

SOURCE: Petrol si gaze, v. 16, no. 3-4, 1965, 158-171

TOPIC TAGS: flow meter, industrial separator, petroleum industry equipment, petroleum engineering, crude petroleum, natural gas

ABSTRACT: The authors discuss the requirements and accomplishments to date with respect to high-capacity gas-crude oil and water-crude oil separators suitable for integration into centrally controlled and automated oil field operations, as well as highly accurate crude oil production meters. Special attention is paid to the work of the specialty institutes of the Ministry of the Petroleum and Chemical Industry. Orig. art. has: 20 figures and 1 table. [Based on author's Eng. abstract] [JPRS]

SUB CODE: 11, 13 / SUEM DATE: none / ORIG REF: 014 / OTH REF: 013  
SOV REF: 003

Card 1/1 hK

SIEVICH, S., dots.

Students of the Leningrad Marine Engineering School on an  
Antarctic expedition. Mor. flot 19 no.7:35-36 J1 '59.  
(MIRA 12:10)

1. Leningradskoye vyssheye inzhenerno-morskoye uchilishche, uchastnik  
3-y Morskoy antarkticheskoy ekspeditsii.  
= (Antarctic regions) (Leningrad--Marine engineering)

(NOT LISTED ON 3rd. WAS Mbr. of 3rd house). L.L.L.



SLEVICH, S., kadn.ekon.nauk, dots.

Legal status of Antarctica. Mor.flot 19 no.10:18-20

u '59.

(MIRA 13:2)

1. Leningradskoye vyssheye inzhenernoye morskoye uchilishche.  
(Antartic regions)

*Handwritten note:*  
Leningradskoye Vyssheye Inzhenernoye Morskoye Uchilishche  
in Moscow

SOMOV, M.M., otv. red.; MAKSIMOV, I.V., zamestitel' otv.red.; TRESHNIKOV, A.F., zamestitel' otv.red.; ANDRIYASHEV, A.P., red.; BUYNITSKIY, V.Kh., red.; VORONOV, P.S., red.; DOLGIN, I.M., red.; KALESNIK, S.V., red.; KOROTKEVICH, Ye.S., red.; NIKOL'SKIY, A.P., red.; RAVICH, M.G., red.; TAUBER, G.M., red.; PROLOV, V.V., red.; SLEVICH, S.B., red.; KAPLINSKAYA, L.G., red. izd-va; DROZHZHINA, L.P., tekhn.red.

[Report on observations completed by the Soviet Antarctic Expedition in 1957 and 1958] Otchet o nabludeniakh, vypolnennykh Sovetskoi antarkticheskoi ekspeditsiei v 1957 i 1958 gg. Sovetskaya antarkticheskaya ekspeditsiya, 1955-1958. Leningrad, Izd-vo "Morskoi transport," 1960. 39 p (Informatsionnyi biulleten', no. 15) (MIRA 13:6)

(Antarctic regions--Russian exploration)

SLEVICH, S., dotsent

M.V. Lomonosov and the first Russian Antarctic Expedition.  
Mor.flot 21 no.2:38-39 F '61. (MIRA 14:6)

1. Leningradskoye vyssheye inzhenernoye morskoye uchilishche  
im. admirala Makarova.

(Antarctic regions--Discovery and exploration)  
(Lomonosov, Mikhail Vasil'evich, 1711-1765)

SLAVICH, S.B., Cand. ekonomicheskikh nauk

Factors influencing the economic operational indexes of transport  
work in Antarctica. Inform. biul. Sov. antark. eksp. no. 50:46-54 '64.  
(MIRA 18:5)  
Leningradskoye vysshaye inzhenernoye morskoye uchilishche imeni  
admirala Makarova.

SLEVICH, S.B., kand.ekon.nauk

The editing of Bellingsgauzen diary book. Inform.biul.Sov.antark.eksp.  
no.52:63-65 '65. (MIRA 18:10)

1. Leningradskoye vyssheye inzhenernoye morskoye uchilishche imeni  
admirala Makarova.

SLEYN, E.

Labor committees of state farms seize the initiative in important matters. Sov.profsoliuzy 7 no.24:35-36 D '59.  
(MIRA 12:12)

(State farms)

SLEYSHKA, A. S.

SLEYSHKA, A. S.- "Teachings of I. M. Sechenov on the Conception of Space." Moscow Order of Lenin and Order of Labor Red Banner State University named after M. V. Lomonosov, Philosophy Faculty, Moscow, 1955 (Dissertations for the Degree of Candidate of Pedagogical Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

ZHUKOV, A.I., inzh.; KHIL'KO, M.M., inzh.; MERSHCHIY, N.P.; SHKLYAR, M.S.;  
SLEZ, L.G.

Practice of firing open-hearth furnaces with natural gas by the method  
of self-carburization. Stal' 21 no. 4:307-311 Ap '61. (MIRA 14:4)  
(Open-hearth furnaces—Combustion) (Gas, Natural)



GAYEVSKAYA, M.S.; NOSOVA, Ye.A.; SLEZ, L.M.

Changes in the amide group content of cerebral cortex protein in  
dying and resuscitation. Ukr.biokhim.zhur. 37 no.5:691-696 '65.  
(MIRA 18:10)

1. Laboratoriya eksperimental'noy fiziologii po ozhivleniyu organizma  
AMN SSSR, Moskva.

SLEZACEK, I.

Biological warfare. Voj.zdrav.listy 19 no.1-2:Ja-F '50.  
(CINL 19:2)

SIEZACEK, L.

Problem of control of certain infectious diseases in Czechoslovak  
Army. Voj.zdrav.listy 19 no.1-2:9-12 Ja-F '50. (CLML 19:2)

KLABOCH, L., inz.; DUFEK, Jaroslav, inz.; HAJEK, E., doc., inz.; REZNICEK, I., inz.; ROD, F., inz.; DRDA, J., inz.; MATOUSEK, B., inz.; KOUSAL, P., inz.; MANDA, V.; CAIS, O., inz.; NOVAK, S.; URBAN, S.; HANKE, M., inz.; VOKURKA, V., inz.; FOGL, J., inz.; HROMIR, M., inz.; SOLIN, J., prof., inz.; SLEZAK, A., inz.; TITLBACH, Z., inz.; DREXLER, J., inz.; HORNA, O., inz.; KUPEC, J., inz.

Discussion on tensionetry. Zpravodaj VZLU no.2:37-46, 69-80 '62.

1. Vyzkumny a zkusebni letecky ustav (for Dufek, Reznicek, Manda, Cais, Drexler and Kupec). 2. Statni vyzkumny ustav tepelne techniky (for Klaboch, Rod, Drda, Matousek, Titlbach). 3. Ceske vysoke uceni technicke (for Hajek, Solin). 4. Ustav pro vyzkum motorovych vozidel (for Hanke, Vokurka, Fogl, Hromir). 5. Vyzkumny ustav matematickych stroju (for Horna). 6. Moravan, n.p., Otrokovice (for Kousal). 7. Mikrotechna, Holesovice (for Novak). 8. Zavody V.I.Lenina (for Urban). 9. Svermovy zavody, Vyzkumny ustav (for Slezak).